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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,300	06/01/2001	Poopathy Kathirgamanathan	A34319-PCT-U	3386

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EXAMINER

YAMNITZKY, MARIE ROSE

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/857,300

Applicant(s)

KATHIRGAMANATHAN,  
POOPATHY

Examiner

Marie R. Yamnitzky

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 22-34 and 36-42 is/are pending in the application.
- 4a) Of the above claim(s) 40 and 42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-34, 36-39 and 41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's amendment filed on December 29, 2003, which amends claims 22, 36 and 39-42, has been entered.

The examiner notes that the status identifier for claims 39-42 as set forth in the amendment filed December 29, 2003 should read --(Currently Amended)--.

2. Applicant's amendment overcomes all prior art rejections set forth in the Office action mailed August 07, 2003. In view of Schmitz et al. in *Chem. Mater.* 2000, 12, 3012-3019 (previously submitted by applicant), an electroluminescent device having a layer of blue-emissive electroluminescent material comprising a substituted or unsubstituted lithium quinolate will not necessarily emit light that is blue to an observer. Schmitz et al. disclose PL values for the lithium quinolates Liq and LiMeq that are within the range of wavelengths associated with blue light (Table 1 on p. 3014). However, the CIE coordinates disclosed for devices made with these two lithium quinolates are coordinates of green light (the paragraph bridging pp. 3015-3016; see the CIE diagram in Fig. 1 of US 6,221,517 B1 of Eida et al.).

3. With respect to the proposed drawing correction filed December 29, 2003, the proposed inclusion of a "Prior Art" label on Figure 5 is acceptable but the proposed inclusion of a "Prior

Art" label on Figure 6 is not acceptable. Accordingly, the examiner has marked the proposed drawing correction as "DO NOT ENTER".

Based on the disclosure on page 10 of the specification that Fig. 5 shows the PL of "commercially available aluminium quinolate", the addition of a Prior Art label to Figure 5 is acceptable. However, 37 CFR 1.121 requires that any replacement drawing sheet must be identified in the top margin as "Replacement Sheet". The drawing sheets filed December 29, 2003 lack the necessary "Replacement Sheet" identification.

Based on the original disclosure as a whole, it is not clear that Figure 6 represents prior art. Page 10 of the disclosure refers to Fig. 6 as showing the UV-VIS, PL and EL of lithium quinolate and Fig. 7 as showing the spectra of lithium quinolate of Example 2. While the lack of a reference to an example number for Fig. 6 might suggest that Fig. 6 pertains to a prior art lithium quinolate, the second paragraph on page 2 of the specification states "[a]lthough some metal quinolates are known hitherto, lithium quinolate has not been made". Based on the prior art of record, the statement in the second paragraph on page 2 does not appear to be accurate, but does raise a question as to whether Fig. 6 can be labeled as prior art.

4. Claims 40 and 42 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made by original presentation. Claims 40 and 42 are drawn to methods and will be rejoined upon allowance of a product claim subject to the conditions set forth in MPEP 821.04.

5. Claims 22-34, 36-39 and 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Proper antecedent basis is lacking for “the observer” as recited in the last line of claims 22, 36, 39 and 41. The examiner suggests changing “the observer” to --an observer--.

The limitations imposed by the requirement that the electroluminescent device emit light which is “blue” to an observer is not clear, particularly when considered in light of Figures 6 and 7 of the original disclosure.

Figure 6 shows “EL of Liq” with a peak emission wavelength within the range associated with green light. It is doubtful that the electroluminescent device that provided the EL spectrum set forth in Fig. 6 emits light which is blue to an observer. Figure 7 is described on page 10 of the specification as showing the spectra of lithium quinolate of Example 2. Figure 7 includes two spectra, one having a peak emission wavelength within the range associated with green light, the other having a peak emission wavelength within the range associated with blue light. The spectra having a peak emission wavelength within the range associated with blue light is disclosed as having CIE coordinates  $x, y$  of 0.19, 0.28. CIE coordinates  $x, y$  of 0.19, 0.28 fall near the border between “blue green” and “greenish blue” light of the CIE diagram, rather than within the “blue” region of the CIE diagram (e.g. see Fig. 1 in US 6,221,517 B1 to Eida et al.).

Based on the spectrum set forth in Fig. 6, the two spectra set forth in Fig. 7, and the CIE coordinates disclosed for one of the spectra set forth in Fig. 7, the metes and bounds of light which applicant considers to be “blue” to an observer are not clear. It is also not clear if a single

Art Unit: 1774

device might be capable of emitting light that is blue to an observer under one set of conditions, but not blue to an observer under a different set of conditions.

6. Miscellaneous:

In the second line of claim 27, --in-- should be inserted after "quinolate".

In the third line of claim 28, the primed letter "I" should be a primed number "1".

7. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 6:30 a.m. to 4:00 p.m. Monday, Tuesday, Thursday and Friday, and every other Wednesday from 6:30 a.m. to 3:00 p.m.

The current fax number for Art Unit 1774 is (703) 872-9306 for all official faxes. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

MRY  
March 22, 2004



MARIE YAMNITZKY  
PRIMARY EXAMINER

1774